DETAILED ACTION

Response to Amendment

1. This Office action is in response to Applicant's amendment filed 20 January 2010, which cancels claims 7-9, 11, 13, 15, 17, and 19 and amends claims 1-6, 10, 12, 14, 16, 18, and 20.

Claims 1-6, 10, 12, 14, 16, 18, and 20 are pending.

2. The objection to the abstract of the disclosure is because it is longer than 15 lines and more than 150 words is withdrawn due to Applicant's amending of the abstract in the reply filed 20 January 2010.

3. The rejection under 35 U.S.C. 102(e) of claims 1-7, 9, 11, 13, 15, 17, and 19 as being anticipated by Cosimbescu et al. (US 2005/0089717 A1), is overcome due to Applicant's amending or canceling of the claims in the reply filed 20 January 2010.

4. The rejection(s) under 35 U.S.C. 103(a) of claims 8, 10, 12, 14, 16, 18, and 20 as being unpatentable over Cosimbescu et al. (US 2005/0089717 A1) in view of Thompson et al. (US 2002/0034656 A1) is overcome due to applicant's amending of the claims in the reply filed 20 January 2010.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

> invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-6, 10, 12, 14, 16, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cosimbescu et al. (US 2005/0089717 A1) in view of Murata et al. (Non-dispersive and air-stable electron transport in an amorphous organic semiconductor.).

Regarding claims 1-6, 10, 12, 14, 16, 18, and 20, Cosimbescu et al. disclose an electroluminescent device comprising an anode and a cathode [0084]. Between the electrodes is a hole transport layer, light-emitting layer, and an electron transport layer [0084]. The light-emitting layer comprises an asymmetric anthracene ([0017]-[0021]) of instant formula (1) wherein R1-R4 are hydrogen and R5-R11 are hydrogen, X is a biphenyl or triphenyl group of instant formulae (2-1), (2-2), (2-3), (2-4), or (2-8). The light-emitting layer also comprises a perylene derivative [0026], a borane derivative (compounds L50-L52, page 17), a coumarin derivative [0026], a pyran derivative [0026], an iridium complex (compound L45, page 16), or a platinum complex (compound L48, page 16) as a dopant [0082]. The reference also discloses an electron transport layer

comprising Alq [0165]. However the reference does not explicitly disclose a pyridine derivative in the electron transport layer.

Murata et al. teach the electron transport properties of silole derivative (abstract). The reference teaches the compound PyPySPyPy (figure 1, page 162), a pyridine derivative compound, as an electron transporting compound that forms amorphous layers (page 164, second column, lines 17-20). The reference teaches the compound to have superior electron transporting properties (page 164, second column, lines 17-20), with twice the hole mobility of Alq (page 163, second column, lines 11-14), and that using PyPySPyPy in the electron transport layer of an electroluminescent device decreases the drive voltage (last paragraph of Results, page 165).

It would be obvious to one of ordinary skill in the art at the time of the invention to use the compound of Murata et al. in the electron transport layer of Cosimbescu et al. One of ordinary skill in the art would readily expect such a combination to be suitable given that Murata et al. teach the compound to be suitable electron transport material for organic electroluminescent devices. One of ordinary skill in the art would be motivated by a desire to decrease the drive voltage.

Response to Arguments

8. Applicant's arguments with respect to claim 1-6, 10, 12, 14, 16, 18, and 20 have been considered but are moot in view of the new ground(s) of rejection above, necessitated by amendment.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL WILSON whose telephone number is (571) 270-3882. The examiner can normally be reached on Monday-Thursday, 7:30-5:00PM EST, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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MHW